CHARTS AND INSTRUCTIONS

FOR

CALCULATING BUSHELS OF WHEAT

IN

GRANARIES AND PILES

CHART NO. 1 — SQUARE AND RECTANGULAR GRANARIES

GRAIN DEPTH →	1/2FT.	1FT.	2FT.	3FT.	4FT.	5FT.	6FT.	7FT.	8FT.	9FT.	10FT.
SIZE OF GRANARY					BUSHELS						
6 X 6	14.4	29	58	86	115	144	173	202	230	259	288
6 X 7	16.8	34	67	101	134	168	202	235	269	302	336
6 X 8	19.2	38	77	115	154	192	230	269	307	346	384
6 X 9	21.6	43	86	130	173	216	259	302	346	389	432
6 X 10	24.0	48	96	144	192	240	288	336	384	432	480
7 X 7	19.6	39	78	118	157	196	235	274	314	353	392
7 X 8	22.4	45	90	134	179	224	269	314	358	403	448
7 X 9	25.2	50	101	151	202	252	302	353	403	454	504
	1/2	1	2	3	4	5	6	7	8	9	10
7 X 10	28.0	56	112	168	224	280	336	392	448	504	560
8 X 8	25.6	51	102	154	205	256	307	358	410	461	512
8 X 9	28.8	58	115	173	230	288	346	403	461	518	576
8 X 10	32.0	64	128	192	256	320	384	448	512	576	640
9 X 10	36.0	72	144	216	288	360	432	504	576	648	720
9 X 12	43.2	86	173	259	346	432	518	605	691	778	864
9 X 14	50.4	101	202	302	403	504	605	706	806	907	1008
	1/2	1	2	3	4	5	6	7	8	9	10
10 X 10	40.0	80	160	240	320	400	480	560	640	720	800
10 X 12	48.0	96	192	288	384	480	576	672	768	864	960
10 X 14	56.0	112	224	336	448	560	672	784	896	1008	1120
10 X 16	64.0	128	256	384	512	640	768	896	1024	1152	1280
10 X 18	72.0	144	288	432	576	720	864	1008	1152	1296	1440
10 X 20	80.0	160	320	480	640	800	960	1120	1280	1440	1600
12 X 12	57.6	115	230	346	461	576	691	806	922	1037	1152
12 X 14	67.2	134	269	403	538	672	806	941	1075	1210	1344
12 X 16	76.8	154	307	461	614	768	922	1075	1229	1382	1536
	1/2	1	2	3	4	5	6	7	8	9	10
14 X 14	78.4	157	314	470	627	784	941	1098	1254	1411	1568
14 X 16	89.6	179	358	538	717	896	1075	1254	1434	1613	1792
14 X 18	100.8	202	403	605	806	1008	1210	1411	1613	1814	2016
16 X 16	102.4	205	410	614	819	1024	1229	1434	1638	1843	2048
16 X 18	115.2	230	461	691	922	1152	1382	1613	1843	2074	2304
16 X 20	128.0	256	512	768	1024	1280	1536	1792	2048	2304	2560
18 X 18	129.6	259	518	778	1037	1296	1555	1814	2074	2333	2592
18 X 20	144.0	288	576	864	1152	1440	1728	2016	2304	2592	2880
20 X 24	192.0	384	768	1152	1536	1920	2304	2688	3072	3456	3840
24 X 24	230.4	461	922	1382	1843	2304	2765	3226	3686	4147	4608
	1/2	1	2	3	4	5	6	7	8	9	10

CHART NO. 2 — CIRCULAR GRANARIES

GRAIN DEPTH →	1 FT.	2 FT.	3 FT.	4 FT.	5 FT.	6 FT.	7 FT.	8 FT.	9 FT.	10 FT.
DIAMETER					BUSHELS					
5 FT.	15.7	31	47	63	79	94	110	126		
6 FT.	22.6	45	68	90	113	136	158	181	203	226
7 FT.	30.8	62	92	123	154	185	216	246	277	308
8 FT.	40.2	80	121	161	201	241	281	322	362	402
9 FT.	50.9	102	153	204	255	305	356	407	458	509
10 FT.	62.9	126	189	252	315	377	440	503	566	629
12 FT.	90.5	181	272	362	453	543	634	724	815	905
14 FT.	123.2	246	370	493	616	739	862	986	1109	1232
15 FT.	141.4	283	424	566	707	848	990	1131	1273	1414
16 FT.	160.9	322	483	644	805	965	1126	1287	1448	1609
18 FT.	203.7	407	611	815	1019	1222	1426	1630	1833	2037
20 FT.	251.4	503	754	1006	1257	1508	1760	2011	2263	2514
24 FT.	362.1	724	1086	1448	1811	2173	2535	2897	3259	3621

CHART NO. 3 — CONICAL PILES

GRAIN DEPTH →	1 FT.	2 FT.	3 FT.	4 FT.	5 FT.	6 FT.	7 FT.	8 FT.	9 FT.	10 FT.
DIAMETER					BUSHELS					
5 FT.	7.9	16	24	32						
6 FT.	11.3	23	34	45	57					
7 FT.	15.4	31	46	62	77	92				
8 FT.	20.1	40	60	80	101	121	141			
9 FT.	25.5	51	77	102	128	153	179	204		
10 FT.	31.4	63	94	126	157	188	220	251	283	
12 FT.	45.3	91	136	181	227	272	317	362	408	453
14 FT.	61.6	123	185	246	308	370	431	493	554	616
16 FT.	80.5	161	242	322	403	483	564	644	725	805
18 FT.	101.8	204	305	407	509	611	713	814	916	1018
20 FT.	125.7	251	377	503	629	754	880	1006	1131	1257
24 FT.	181.02	362	543	724	905	1086	1267	1448	1629	1810

WHEAT SHOWN ON CHARTS 1, 2 AND 3 IS CALCULATED AT 60 POUNDS PER BUSHEL. FOR ADJUSTMENT TO LIGHTER WEIGHT WHEAT SEE INSTRUCTIONS.

INSTRUCTIONS

The following methods, examples and instructions will aid in calculating the bushels of wheat in granaries and piles also the proper application of charts 1, 2 and 3:

Rectangular or square granaries: Multiply the length by the width by the depth and then multiply by decimal 8.

> **Example:** Granary 10 ft. x 10 ft., 6 ft. deep.
> **Calculation:** 10x10x6 = 600x.8 = 480.00 = 480 bushels 60 lb. wheat.

Circular granaries: Multiply the diameter by the diameter times decimal 78. Then multiply by the depth of grain then by decimal 8. This gives the number of bushels of 60 lb. wheat.

> **Example:** Diameter equals 10 ft., depth of grain 6 ft.
> **Calculation:** 10x10x.78 = 78.00x6 = 468x.8 = 374.4 = 374 bushels 60 lb. wheat.

Conical Pile: Multiply the diameter by the diameter by decimal 78. Then multiply by the depth of grain then by decimal 8, this divided by 2 equals the number of bushels of 60 lb. wheat.

> **Example:** Diameter 10 ft., height at centre 6 ft.
> **Calculation:** 10x10x.78 = 78.00x6x.8 = 374.4 divided by 2 = 187.2 or 187 bushels 60 lb. wheat.

Adjustment for wheat weighing less than 60 lbs. per bushel:

> Should wheat weigh less than 60 lbs. per bushel, first determine the number of bushels by the application of charts, 1, 2 or 3 or by the method shown above, then multiply this figure by the actual weight of wheat and divide by 60, this will give the correct bushels of wheat at 60 lbs.

> **Example:** Weight of wheat 52 lbs. per bushel.
> **Calculation:** 480x52 = 24960 divided by 60 = 416 bushels wheat at 60 lbs.